

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (currently amended) An electrically conductive polymeric article comprising a polymeric material ~~capable of exhibiting electrical conductivity;~~

the polymeric material being rendered intrinsically electrically conductive by treatment with a viologen salt.

2. (original) An electrically conductive polymeric article according to claim 1 wherein the polymeric material is chosen from polymers derived from aromatic bases and from polymers derived from heterocyclic bases.

3. (original) An electrically conductive polymeric article according to claim 2 wherein the polymeric material is chosen from polyaniline and its derivatives.

4. (currently amended) An electrically conductive polymeric article according to claim 2 wherein the polymeric material is chosen from polypyrrole and ~~its~~ polypyrrole derivatives.

5. (original) An electrically conductive polymeric article according to claim 3 wherein the polymeric material is polyaniline.

6. (original) An electrically conductive polymeric article according to claim 4 wherein the polymeric material is polypyrrole.

7. (currently amended) An electrically conductive polymeric article according to claim 5, wherein the polymeric material is polyaniline or a polyaniline derivative having ~~base material has~~ an oxidation state between the leucoemeraldine (0% oxidation state) and the emeraldine (50% oxidation state).

8. (original) An electrically conductive polymeric article according to claim 1, wherein the polymeric material is in the form of a film, film coating, or powder.

9. (canceled)

10. (original) An electrically conductive polymeric article according to claim 1, wherein the viologen salt is a viologen dihalide.

11. (original) An electrically conductive polymeric article according to claim 10 wherein in the viologen dihalide the substituents on the bipyridinium are chosen from substituted and unsubstituted alkyl and aryl groups.

12. (original) An electrically conductive polymeric article according to claim 11 wherein the substituted and unsubstituted alkyl groups are chosen from C1 to C4 alkyl optionally substituted with halogen, aryl or substituted aryl.

13. (original) An electrically conductive polymeric article according to claim 12 wherein the substituted and unsubstituted alkyl groups are chosen from C1 to C4 alkyl and benzyl.

14. (original) An electrically conductive polymeric article according to claim 10 wherein in the viologen dihalide the halide anions are chosen from chloride, bromide and iodide.

15. (original) An electrically conductive polymeric article according to claim 1, wherein the viologen salt is present in a monomeric or polymeric form.

16. (currently amended) An electrically conductive polymeric article comprising a polymeric material ~~capable of exhibiting electrical conductivity~~;

the polymeric material being rendered intrinsically electrically conductive by treatment with a viologen dihalide salt, wherein the haloviologen material is selected from one or more of benzyl viologen dichloride and poly(butylviologen dibromide).

17. (currently amended) An electrically conductive polymeric article according to claim 5, wherein the resistance of the polyaniline or polyaniline derivative, ~~base material~~, R_s , is reduced from approximately $10^{10} \Omega/\text{sq}$ to approximately $10^6 \Omega/\text{sq}$ or less.

18. (currently amended) A method of preparing an electrically conductive polymeric article, which method comprises providing

a polymeric material ~~capable of exhibiting electrical conductivity~~; and

a viologen salt;

contacting a surface of the polymeric material with the viologen salt to render the polymeric material intrinsically electrically conductive.

19. (currently amended) A method according to claim 18, wherein the polymeric material is a polyaniline or a polyaniline derivative which has an oxidation state between the leucoemeraldine (0% oxidation ~~state~~) and the emeraldine (50% oxidation ~~state~~) states.

20. (original) A method according to claim 18 wherein the polymeric material is a polypyrrole.

21. (currently amended) A method of preparing an electrically conductive polymeric article, which method comprises providing

a polymeric material ~~capable of exhibiting electrical conductivity~~; and

a viologen dihalide salt;

contacting a surface of the polymeric material with the viologen salt to render the polymeric material intrinsically electrically conductive.

22. (currently amended) A method according to claim 18, wherein the viologen salt is selected from one or more of viologen benzyl dichloride and poly(butylviologen dibromide).

23. (currently amended) A method according to claim_18, wherein the viologen salt is present in the form of an aqueous solution.

24. (original) A method according to claim 23, wherein the method is conducted at a temperature of 0° to approximately 100°C in the presence of air.

25. (currently amended) A method according to claim_18, wherein the rate of conversion of the polymeric material to a conducting state is varied by varying one or more of the viologen salt, the concentration of the viologen salt, the concentration of oxygen_present during the contacting step, the temperature at which the contacting step is performed and exposure of the contacted polymeric material to light.

26. (previously presented) An electrically conductive polymeric article prepared according to the method according to claim 18.

27. (previously presented) The method of claim 18, further comprising removing any unreacted viologen salt.

28. (previously presented) The method of claim 21, further comprising removing any unreacted viologen dihalide salt.